

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the following remarks.

Claims 50, 51, and 53-60 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haartsen (US Publication No. 20020126692) (hereinafter, “Haartsen”) in view of Montano et al. (US Patent No. 7280518) (hereinafter, “Montano”) and further in view of Chuah (US Publication No. 20030214928) (hereinafter, “Chuah”). The Applicants respectfully traverse based on the points set forth below.

By way of review, claim 50 is directed towards a radio communication device and recites the features of:

“50. (Previously Presented) A radio communication device in whose communication area another radio communication device operates, comprising:

a detection section that detects an operation of the other radio communication device during a time slot, the time slot being used at a high priority by the radio communication device, within the communication area of the radio communication device; and

a contention resolution section that performs contention resolution processing when the detection section detects an overlap based on the other communication device operating during the time slot, said contention resolution section comprising:

a time slot dividing section that divides the time slot into a plurality of slots, and a slot setting section that sets one of the plurality of divided slots to the radio communication device as a higher priority slot, and sets another of the plurality of divided slots to the other radio communication device as a lower priority slot.”
(emphasis added)

As explained in the specification, the radio communication device according to claim 50 is capable of avoiding a signal collision in a wireless medium to improve communication throughput. (par. [0007]).

The Office Action (pg. 6) acknowledges that Haartsen fails to teach the feature of “a detection section that detects an operation of the other radio communication device during a time slot,” and then cites to Montano for allegedly curing this deficiency of Haartsen, stating:

“However, Haartsen fails to teach a detection section that detects an operation of the other radio communication device during a time slot
...

But, Montano teaches a detection section that detects an operation of the other radio communication device during a time slot (fig. 3, #350, and col. 2, lines 65-67)”

However, despite the allegations set forth in the Office Action, it is respectfully submitted that Montano fails to teach the “detection section” recited by claim 50. It is well established that “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” MPEP 2143.03.

Here, the Office Action alleges that “fig. 3, #350” and “col. 2, lines 65-67” teach the above-noted “detection section” recited by claim 50. Montano discloses, in col. 2, lines 65-67 that:

“Any non-coordinator device 321-325 that is able to communicate with the coordinator 310 (and vice versa) is within the usable area 350 of the network 300.”

Montano further discloses, in FIG. 3, that the five non-coordinator devices 321-325 “coordinate” (as shown by arrows) with the coordinator 310 in the “usable area 350” (as shown by a circle perimeter).

However, Montano does not disclose, either expressly or inherently, the feature of “a detection section that detects an operation of the other radio communication device during a time slot,” with “the time slot being used at a high priority by the radio communication device,” as recited by claim 50. Claim 50 specifically defines that the detection section detects the operation

of the other radio communication device during a time slot, where the time slot is used at a high priority by the radio communication device. Montano's mere disclosure that the "coordinator 310" and the "non-coordinator devices 321-325" can communicate with each other in a usable area 350 is not the same as detecting another radio communication device operating in a time slot with a high priority, as recited by claim 50. In fact, col. 2, lines 65-67 does not even mention a "time slot" at all, and thus clearly fails to disclose the feature of "a detection section that detects an operation of the other radio communication device during a time slot," with "the time slot being used at a high priority by the radio communication device," as recited by claim 50.

Furthermore, the Office Action (pg. 6) acknowledges that Haartsen fails to teach the recited "time slot dividing section" of claim 50, and then cites to Montano as allegedly curing this deficiency, stating that:

"Haartsen fails to teach...and that said contention resolution section comprising: a time slot dividing section that divides the time slot into a plurality of slots
...
But, Montano teaches...and that said contention resolution section comprising: a time slot dividing section that divides the time slot into a plurality of slots (col. 16, lines 1-5)"

However, despite the allegations set forth in the Office Action, Montano fails to teach or suggest this recited feature as well.

Montano discloses, in col. 15, line 65-col. 16, line 5, that:

"In this preferred embodiment two management time slots 1050 are used per superframe 1010, one uplink and one downlink, though alternate embodiments could choose different numbers of management time slots 1050 and mixtures of uplink and downlink. MTSs can also be shared among multiple devices 321-325. In this case a conventional resolution method, such as slotted Aloha, must be used. In addition, if a CAP 1030 is used to pass administrative information, the use of MTSs 1050 may be reduced or eliminated."

Thus, Montano simply discloses a “contention resolution method” must be used in case that a MTS (management time slot) is shared among multiple devices, and then provides “slotted Aloha” as one such contention resolution method.

In contrast, the “contention resolution section” recited by claim 50 includes “...a time slot dividing section that divides the time slot into a plurality of slots.” Montano does not disclose this feature, and in fact, col. 16, lines 1-5 of Montano does not mention dividing a time slot into a plurality of slots.

Moreover, despite the allegations set forth in the Office Action, one skilled in the art would not have been motivated to combine Haartsen, Montano and Chuah to arrive at the radio communication device recited by claim 50 because these prior art references teach away from the combination, or at the very least, do not have a reasonable expectation of success. MPEP 2143.02. These motivation to combine arguments were previously raised by the Applicants in the Amendment filed on May 18, 2010, and then in a telephone interview conducted on November 4, 2010.

Specifically, the Applicants have identified (see Summary of the Substance of Telephone Interview, filed on November 16, 2010) a number of reasons why the Office Action’s alleged motivation to combine is unsupported, including:

(1) Haartsen teaches using the “pseudo-token” to ensure that only one communication unit is transmitting on a channel at a given time, while Montano and Chuah teach dividing time slots to perform contention resolution when multiple communication units are communicating;

(2) Haartsen explicitly teaches that “only one unit is allowed to transmit at a given time” (par. [0027]) and “[a]ll other units are prohibited from transmitting during unit A’s reserved

slots” (par. [0036]), which teaches away from Montano’s disclosure that “MTSs [Management Time Slots] can also be shared among multiple devices 321-325” (col. 16, lines 2-3);

(3) modifying Haartsen to divide time slots into sub-slots, as disclosed by Montano and Chuah, would only result in the other subslots being unused, which is inefficient and wasteful;

(4) the Examiner’s stated motivation to combine Haartsen with Montano “...to prevent or avoid signal or data collision in the channel” (Office Action, pg. 5) is not reasonable, because Haartsen’s pseudo-token prevents multiple communication units from transmitting in the same channel at the same time, so there would be no need to modify Haartsen to “prevent or avoid signal or data collision in the channel” using the time division disclosed by Montano and Chuah; and

(5) every embodiment of Haartsen discloses feature (4) above (not just “preferred” embodiments or “disclosed examples”).

In response, the Office Action (pg. 5) has maintained the §103 rejections and identified the following legal principles in supporting the rejection:

“...the Examiner respectfully disagrees with Applicant’s arguments. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. In re Susi, 440 F.2d 442, 169 (USPQ 423 (CCPA 1971). Furthermore, the prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...” In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). See MPEP 2123.”

In response, the Applicants re-iterate each of the above arguments and note that every embodiment of Haartsen (not just “preferred” embodiments or “disclosed examples”) teaches that a pseudo-token prevents multiple communication units from transmitting in the same channel at the same time, so there would be no need to modify Haartsen to “prevent or avoid signal or data collision in the channel” using the time division disclosed by Montano and Chuah.

Accordingly, it is respectfully submitted that one skilled in the art would not have been motivated to combine Haartsen, Montano and Chuah as set forth in the Office Action to arrive at the radio communication device recited by claim 50, and furthermore, even if these references were combined as proposed in the Office Action, the combination would still fail to teach or suggest each of the features recited by claim 50. Accordingly, it is respectfully submitted that allowance of claim 50 and all claims dependent therefrom is warranted for at least this reason. Claim 60 recites substantially the same subject matter distinguishing claim 50 from the applied references, though with respect to a method. Accordingly, it is respectfully submitted that allowance of claims 50 and 60 and all claims dependent therefrom is warranted for at least these reasons.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a personal communication, the Examiner is requested to e-mail the undersigned at the address listed below.

Respectfully submitted,

/James E. Ledbetter/

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